

## REMARKS

Claims 13-24 are pending in the application. All of the claims had been rejected as being obvious over Chapus, et al, U.S. patent 6,007,704. Applicant respectfully traverses the rejection.

Chapus, et al, disclose a process wherein a cracked naphtha is separated into a light fraction and a heavy fraction. The light fraction is first optionally subjected to selective hydrogenation of the dienes and then mild hydrotreating to reduce the sulfur content with minimal hydrogenation of the mono olefins. The heavy fraction is subjected to hydrodesulfurization. The light fraction of Chapus, et al, is characterized as containing olefins and sulfur in the form of mercaptans. The heavy fraction contains sulfur in the form of thiophene or substituted thiophenes.

The examiner alleges that the selective hydrogenation of the light fraction will necessarily also hydrogenate sulfur compounds, thus increasing their molecular weight. However, applicant respectfully points out that the sulfur compound in the light fraction of Chapus, et al, are mercaptans and thus are already saturated. It is the thiophene that applicant's invention is hydrogenating to n-butyl mercaptan. Chapus, et al, do not disclose any sulfur compounds being saturated in the diene selective hydrogenation stage. Thus it would not be obvious from Chapus, et al, to transform the sulfur compounds (hydrogenate thiophene) in a stage as claimed in the present invention. Silence in a reference is not a proper substitute for an adequate disclosure of facts. *In re Burt*, 148 USPQ 548 (CCPA 1966).

It appears that the examiner is relying on inherency. The examiner's reliance on "inherency" is misplaced. For example, the discovery of a new property in an old compound does not make the old compound patentable since the property was "inherent" in the compound. The examiner has confused inherency with obviousness. Inherency is not obviousness. *In re Adams*, 148 USPQ 743, 746. The Board of Appeals has further restricted "inherency" by holding that in order to sustain a rejection based on inherency, such inherency must be certain. *Ex parte Cyba*, 155 USPQ 756. In the *Cyba* case the reactants were the same and the process was the same, except that the appellant had used a different solvent. The examiner must provide a basis that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art. *Ex parte Levy*, 17 USPQ2d 1461, 1464 (BdpatApp 1990). The standard set by the Board is absolute certainty of inherency.

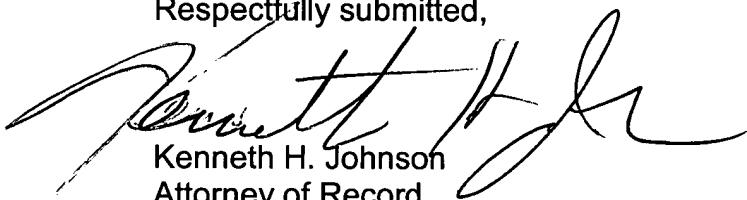
Inherency may not be established by probabilities or possibilities. The disclosure must

be sufficient to show that the natural result flowing from the operation as taught would result in the performance of the questioned function. See *Continental Can Co. v. Monsanto Co.*, 948 F2d 1264, 1268, 20 USPQ2d 1746 (Fed. Cir. 1991) It is submitted that even under the clarification of "inherency" by the CAFC, that the proposed rejection fails.

Applicant reminds the examiner that the instant claims were copied from published application 10/095,295 which was filed on March 12, 2002, and published as UA2003/0042175A, March 6, 2003, in order to provoke an interference with claims 1-7 of the cited application. If the claims in the cited application have been or are found allowable then an interference must be instituted.

Applicant respectfully requests reconsideration and early allowance of the claims.

Respectfully submitted,



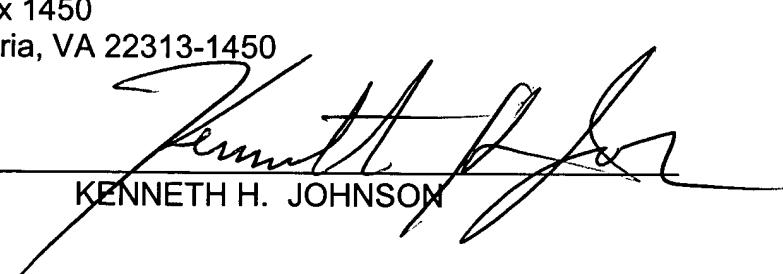
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